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redefining flight

ALLSTEADY-5 GIMBAL MANUAL V1.2

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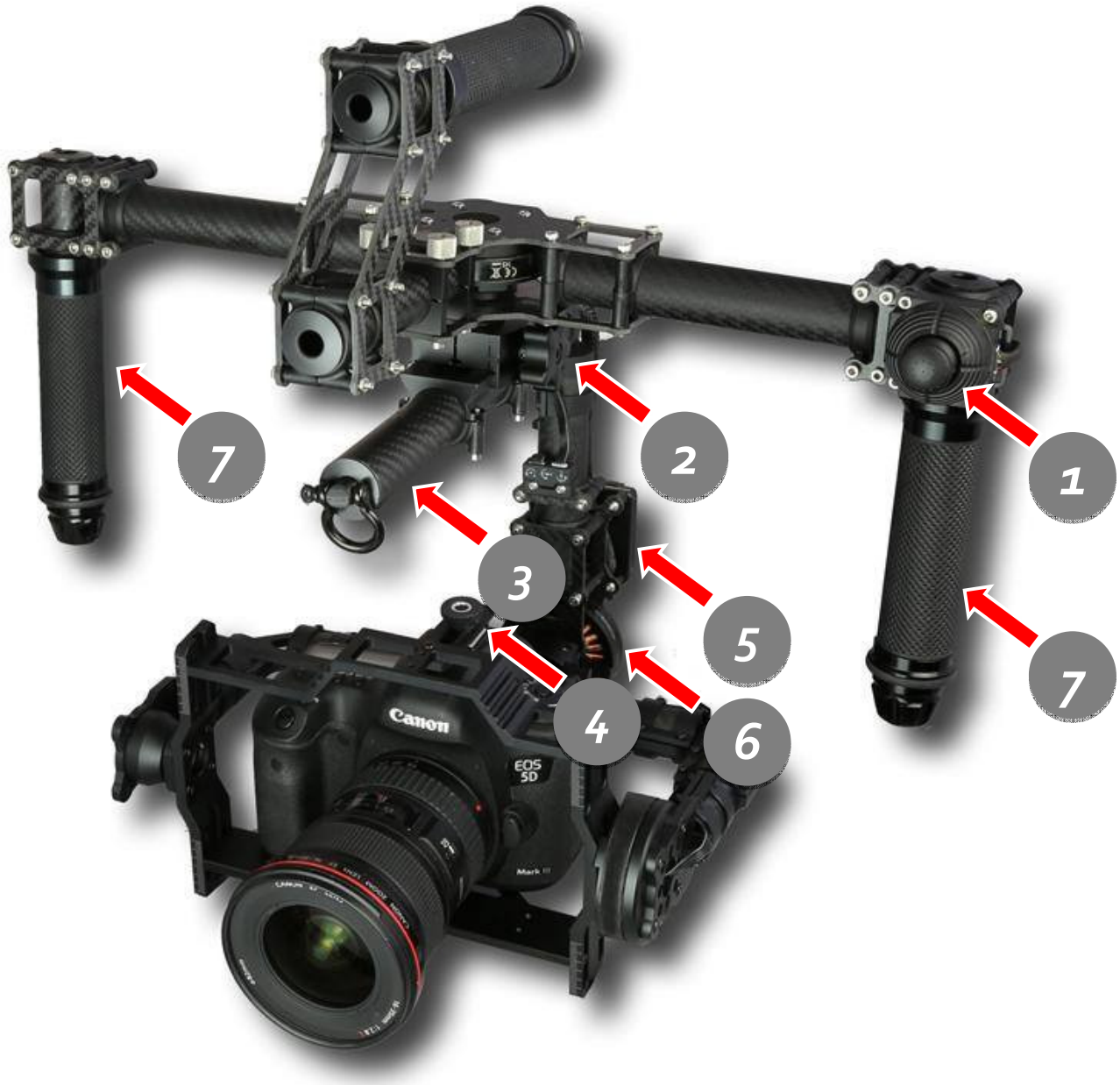


ALL STEADY 5

AllSteady-5 Diagram & Options:

❖ *Match the designated numbers from the picture on page **2** to the list on page **3***

1) Joystick (2-axis) and Mode switch botton (press down to switch modes)

2) Tool-less Pan-Axis CG Adjustment

3) Integrated Battery Compartment

4) Quick Release Camera Top Mount Bracket Adjustment

5) Main Electronic Compartment with easy access power switch

6) High Torque Roll-Axis Brushless Motor

7) Rubber Grip Handle

❖ *Thank you for purchasing the AllSteady-5 Gimbal*

[Before getting started, please follow our balancing guide. We recommend you have your camera and accessories (i.e. filter, batteries, etc.) mounted before balancing the gimbal. If your lens has an adjustable zoom, set the zoom to the desired position before balancing.]

FOR YOUR CONSIDERATION

All TurboAce warranties, instructional manuals, or any miscellaneous documentation for the AllSteady-5 must be speculated. TurboAce does their best to resolve any technical errors in order to increase the overall efficiency of the AllSteady-5.

DISCLAIMER

While the AllSteady- 5 does not require a license to use, please regard this as an advanced cinema product that must be handled with caution and good judgment. A basic understanding of mechanical functions is needed in order to operate the AllSteady-5 safely and responsibly. Failure to do so could not only result in injury of yourself and others, but irreparable damage to your gimbal.

It is essential to read our User Manual to ensure a safe and smooth experience. Please note that this guide should be viewed "as is" and Turbo Ace will not be held responsible for any contrary interpretation made by the user that is different from what the manual intended. Turbo Ace reserves the right to adjust the manual when needed and is not committed to alert any user of such changes.

ALLSTEADY-5 WARRANTY

Turbo Ace offers a limited year warranty where all service and parts support is provided from Turbo Ace's warehouse and showroom located in Orange, California.

- **30 Days Warranty on Parts & Labor**
- **30 Days Phone Support and 90 days free email support**
- **After warranty phone support available at a rate of $1 per minute**

I. Quick Start Guide

WARNING BEFORE USE

1) Remove the gimbal from the box.

2) Make sure power is turned off at the back of the gimbal. The power switch is located at the back of the gimbal on top of electronic compartment. Pressing the "o" down will power the unit off and "-" to turn it on.

3) Charge the battery by following the instruction on Section II. Insert the battery into the tube and plug in the battery connector. .

4) Before setting the gimbal on the balancing stand, please follow the balancing stand setup on Section IV. Balancing stand is an optional item and it can be purchased separately at www.turboace.com

5) All gimbal requires balancing to establish center of gravity. When balance is not obtained, the gimbal will vibrate during operation. When that happens, please set gimbal on the stand and follow the balancing procedure on Section III or go to www.turboace.com for tutorial video links.

6) Turn on the gimbal by pressing down the "-" on the power switch. Gimbal must be stationary during initialization. Please do not allow the gimbal to swing or move it in any way. Wait for about 7 seconds and you see the motors twitch, initialization then has been completed. You are now ready to use the gimbal.

7) When gimbal is initialized and it is defaulted to mode #4. Please follow Section VII for detail on how each mode functions and how they can be changed.

8) The AllSteady-5 can be used in right side up or down configuration. Please see Section VIII for detail.

9) Gimbal cannot be moved during initialization. Before turning on the power, please set the gimbal down on the ground or on the balancing stand and prevent it from moving until the motors are initialized.

II. Battery & Charger

Your AllSteady-5 comes with a smart lithium ion battery. There is a built-in controller in each battery pack that monitors the voltage during charging and discharging so you will never have to worry about under or overcharging. It will take approximately 2 hours to charge an empty battery.

WARNING BEFORE USE

****Never** leave charger unattended, exceed maximum charge rate, charge with non-approved batteries or charge batteries in the wrong mode.

****Always** ensure the battery you are charging meets the specifications of this charger and that the charger settings are correct. Not doing so can result in excessive heat and other related product malfunctions, which can lead to user injury or property damage.

PLEASE DO NOT…

- …leave the power supply, charger and battery unattended during use.
- **…**attempt to charge dead, damaged or wet battery packs.
- …attempt to charge a battery pack containing different types of batteries.
- …allow minors to charge battery packs.
- …charge batteries in extremely hot or cold places or place in direct sunlight.
- …charge a battery if the cable has been pinched or shorted.
- …connect more than one battery pack to this charger at a time
- …connect the charger if the power cable has been pinched or shorted.
- …connect the charger to an automobile 12V battery while the vehicle is running.
- …attempt to dismantle the charger or use a damaged charger.
- …reverse the positive and negative terminals.
- …connect to AC power.

KEEP IN MIND TO ALWAYS…

- …power on the charger before connecting the battery
- …use only rechargeable batteries designed for use with this type of charger.
- …inspect the battery before charging.
- …keep the battery away from any material that could be affected by heat.
- …monitor the charging area and have a fire extinguisher available at all times.
- …end the charging process if the battery becomes hot to the touch or starts to change form (swell) during the charge process.

Failure to follow the advised steps while using this product will not only result in product malfunction, but can cause severe injury and property damage.

BATTERY CHARGING AND INSTALLATION:

1. Connect power supply to power source.
2. Connect charger to the battery
3. Locate the battery compartment which is in the top pan boom (the top pan boom is located on top of the gimbal and below the pan motor).
4. Insert the battery in compartment and hook up the connectors.
5. Turn on the power and you are ready to operate.

We strongly recommend that you **DO NOT** turn on your gimbal

if your camera is not mounted.

III. BALANCING YOUR GIMBAL

We recommend you have your camera and accessories (i.e. filter, batteries, etc.) mounted **before balancing** the gimbal. If your lens has an adjustable zoom, set the zoom to the desired position before balancing.

There are 3 axis that need to be adjusted to ensure proper operation for the gimbal. They include the horizontal and vertical tilt, roll balance, and pan balance. There is also an instructional video for balancing at http://www.turboace.com/allsteady-5videos.aspx

STEP 1: HORIZONTAL TILT

Balancing your gimbal horizontally (or front-to-back) is the first step to keep your camera level. Users must consider that in order to achieve this goal, the camera and Tilt Axis need to be level. Since this is the first step, please note that the gimbal has not yet been balanced vertically for the Tilt Axis. With this being said, it can be assumed that it will only be possible to verify the horizontal tilt to be balanced once the camera and Tilt Axis are level. If the camera is situated too high or too low with respect to the Tilt Axis, it can easily obscure the issue of the horizontal tilt being imbalanced. Please follow the directions below:

1) Loosen your tripod screw under the camera, allowing the camera to slide forwards and backwards.

2) If the camera tilts down lens-first, slide the camera backwards. If the camera tilts so the lens faces upwards, slide the camera forwards. Continue making incremental adjustments until the camera is leveled when facing straight.

3) Make sure to confirm that the camera is securely mounted to the adjustable camera tray.

STEP 2: VERTICAL TILT

Once you have completed Step 1 in balancing your AllSteady-5 Gimbal, the Vertical (or up-and-down) balance. In order to adjust the vertical tilt, you must locate and loosen 4 screws on each side using a 2.5 metric allen key driver. Adjust your camera's position vertically until it is balanced efficiently enough to rotate your camera to any tilt angle. Naturally it will stay wherever you position it. For example, if you point the lens down and you notice the tilt wanting to continue tilting forward on its own, then that is an indicator that it is "top heavy" and the camera needs to be shifted down vertically. Another example is if you point the camera lens down and it wants to return to its original position, then it is "bottom heavy" and your camera needs to be shifted upwards. Please follow the steps below:

1.) Observe which way you need to adjust your camera. You can do this by tipping the camera lens down 20 degrees. If the camera returns to horizontal, then the Tilt Axis is bottom heavy. If the camera continues to rotate down when left to stay in position, then the Tilt Vertical Axis is top heavy.

2.) Rotate the Tilt Axis so that your camera lens is facing straight up.

3.) Make sure to loosen the 4 screws located on each side of the camera tray. There two on top, and two on the bottom on each side of the camera tray.

4.) Slide your camera mount beam and camera horizontally until it remains pointing straight up once released.

5.) Be sure to tighten the 4 screws located at the side of the camera tray before going any further. Verify that you have adjusted your Vertical Tilt Axis by moving your camera to several tilt angles. If it holds or stays in the same place once your hands are released, then you are good to go!

STEP 3: ROLL BALANCE

Now that you're finished with the first two steps, your Tilt Axis should be completely balanced. Now you can start adjusting your Roll Axis. **Keep in mind** that the thumb screw only needs to be loosened slightly to have the roll beam slide back and forth. Loosen the thumb screw below the wedge clamp of the roll axis motor. Slide the roll beam until the Roll Axis of the camera is balanced, and does not want to fall to either side. To lock the roll beam in place, tighten the thumb screw.

Regulate the balance by moving your Roll Axis to several locations. This will also ensure the axis will hold without your physical input.

STEP 4: PAN BALANCE

The pan balance is the last axis to balance for the AllSteady-5. The Pan Balance will ensure that the entire mass below the pan motor will be balanced on the central axis line of the pan motor. The simplest way to check for your Pan Axis to be balanced is tilt the gimbal in the stand and see which way the Pan Axis swings.

1) Align the AllSteady-5 so that the camera lens will be lined up with the long top handle bar
2) Using the handles, rotate the gimbal 5-10 degrees and observe which way the pan rotates.
3) If the lens points to the low side, it means that the gimbal is "nose heavy" and the Pan knuckle needs to slide backwards.
4) If the back of the gimbal points to the low side, it means that the gimbal is "tail heavy" and the Pan knuckle needs to slide forward.
5) Loosen the thumb screw (similar to the one on the roll axis) just enough for the knuckle to slide.
6) Slide the gimbal in the direction needed as advised in Steps 4 & 5.
7) Tighten the thumb screw just enough to hold the pan knuckle while you balance for left/ right (as advised in the next section)
8) When you rotate the AllSteady handles, confirm that the camera will not swing to the left or right. This ensures proper forward and backward balance.

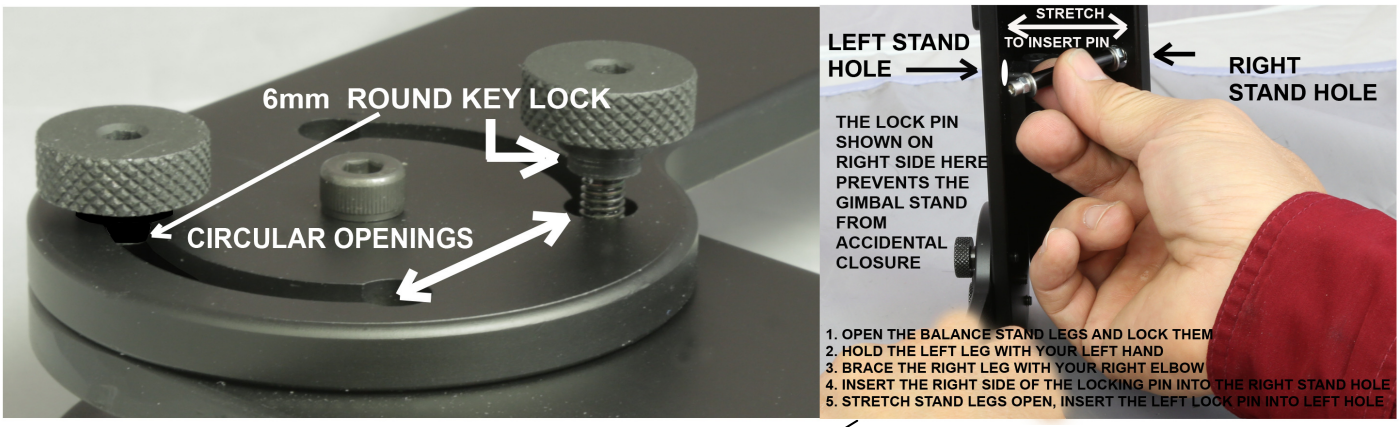
FOR LEFT/ RIGHT BALANCE:

1) Mount your AllSteady in the stand with the lens pointing forwards (perpendicular to the main handle cross tube).
2) Using the handles, rotate the gimbal 5-10 degrees, so the lens is pointing up and observe which way the pan rotates.
3) If the gimbal rotates the lens to the left, it means that the Pan Axis vertical tube needs to be rotated counter clockwise.

4) If the gimbal rotates the lens to the right, it means that the Pan Axis vertical tube needs to be rotated clockwise.
5) Rotate the Pan Axis vertical tube in the direction as advised on Steps 3 & 4.
6) Tighten the pan knuckle and double check that the for/back and left/right balance are still properly balanced. Please note that it may take a few iterations to achieve a perfect balance. Just take your time and follow the steps as closely as you can. The more time spent balancing you gimbal will help you achieve better and more stable footage.

IV. OPTIONAL GIMBAL BALANCING STAND

Before using the stand, please make sure the 6mm diameter round-key lock (which is located below the thumb screw-head) is completely inserted within the circular opening of the track. These screw keys will lock the arms into position and prevent the stand from closing. Brand new units usually require a hex driver to break in the openings. You may need to jiggle the arm while inserting the screw. After the arms have been locked into place, open the legs of the stand and insert the provided lock pin as shown on the right figure below. A list of steps are provided in the picture


6mm ROUND KEY LOCK
CIRCULAR OPENINGS
LEFT STAND HOLE
STRETCH
TO INSERT PIN
RIGHT STAND HOLE
THE LOCK PIN SHOWN ON RIGHT SIDE HERE PREVENTS THE GIMBAL STAND FROM ACCIDENTAL CLOSURE
1. OPEN THE BALANCE STAND LEGS AND LOCK THEM
2. HOLD THE LEFT LEG WITH YOUR LEFT HAND
3. BRACE THE RIGHT LEG WITH YOUR RIGHT ELBOW
4. INSERT THE RIGHT SIDE OF THE LOCKING PIN INTO THE RIGHT STAND HOLE
5. STRETCH STAND LEGS OPEN, INSERT THE LEFT LOCK PIN INTO LEFT HOLE

1.) Open the balance stand legs and lock them into place
2.) Hold the left leg with your left hand
3.) Brace the right leg with your right elbow
4.) Insert the right side of the locking pin into the right stand hole
5.) Stretch stand legs open and insert the left lock pin into the left hole.

V. OPTIONAL EQUIPMENT

Articulating Monitor Arm Installation Guide

The articulating arm is an extension of the monitor bracket that allows the monitor to be moved freely and be placed at multiple angles for viewing. Please advise to the following steps below:

1.) Align the 6mm diameter-articulating-arm screw to the open slot of the bracket.
2.) At the slot opening, locate the indented cavity.
3.) Please turn the arm in a clockwise manner or else the screws will not be fitted inside the opening properly.
4.) Next align the 2 flat keys of the arm to the slotted cavity. The flat keys are designed to prevent the bracket from turning during operation.

VI. PROGRAM MODES

The AllSteady-5 offers 5 programmed modes; each mode having the ability to be switched by pressing the button located behind the joystick. These modes are perfect for achieving different shots and can be very useful.

Note: The default setting is **Mode 4**. That means any time the AllSteady-5 is powering up, that is the mode it is automatically set to.

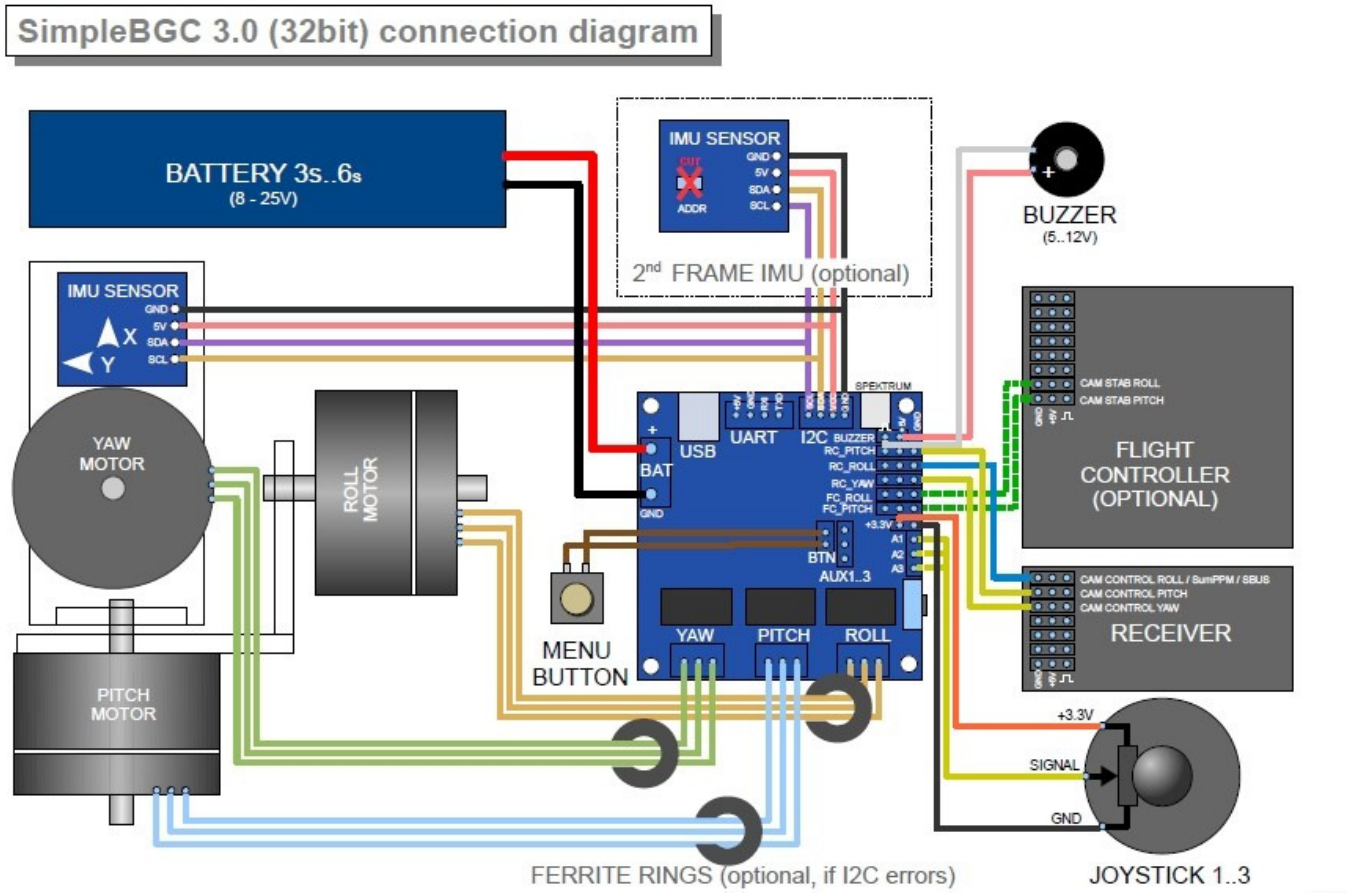
- **Mode (1)**
  - This mode will put you r gimbal in **No Follow**. This means the gimbal will only stabilize and will always be looking forward.
  - To change the user to Mode 1, please press the button **once.**
- **Mode (2)**
  - This mode will put your gimbal in **Pan Follow**. This means that only to top pan motor will follow wherever the handles go. So if you pan the handles to the left or right you will notice the camera would follow.
  - To change the user to Mode 2, please press the button **twice**.
- **Mode (3)**
  - This mode will put your gimbal in **Full Follow Slow**. This means the gimbal will follow in both pan and the pitch. If you tilt the handles up you will see the camera follow upwards. If you pan the handles right or left you will also see the pan follow.
  - To change the user to Mode 3, please press the button **three times**.
- **Mode (4)**
  - This mode will put you r gimbal in **Full Follow Medium Speed**. This means the gimbal will follow for both pitch and pan at a quicker speed relative to Mode 3
  - To change the user to Mode 4, please press the button **four times**.
- **Mode (5)**
  - This mode will put you r gimbal in **Full High Speed**. This is the fastest speed for any of your **Full Follow** modes and acts the same as your previous two Modes.
  - To change the user to Mode 5, please press the button **five times**.

INVERTED and SIDEWAY SHOOTING

The AllSteady-5 can operate in upside down or brief case side way mode. For upside down mode, make sure the gimbal is powered on and in mode 2,3,4 or 5 by pressing the mode switch behind the joystick. Rotate the side handles 180 degrees so they are pointing up. Slowly flip the gimbal upside down by rotating it backwards similar to a gymnast doing a somersault. You can also shoot in brief case mode (gimbal is carried like a brief case on the side of your body), first switch to mode#1 steady mode by press the button behind the joystick once. Next turn the left side of the handle bar (counter clockwise 90 degrees) so it is in alignment with the battery compartment (pan boom). Flip the handle bar so the hand with the joystick is on top. Keep the camera point straight forward before changing the mode to #4 or #5 follow mode. Now you can shoot in brief case mode by holding on just the handle with the joystick.

IX. WIRELESS RECEIVER CONNECTIONS

- ***Use the image below as a guide to hook up your gimbal wirelessly so that you may control it with a transmitter instead of the joystick.***



IX. SOFTWARE

There is a free download for a program that allows you to set your preferences for how the gimbal should react to various movements, as well as the ability to fine-tune the balance of the gimbal further than the manual calibrations as described previously.

System Requirements:

Windows / Mac OSX / Linux
7.5 MB storage space

Software Download:

http://www.basecamelectronics.com/downloads/32bit/

Software Manual Download:

http://www.basecamelectronics.com/files/v3/SimpleBGC_32bit_manual_2_41_eng.pdf